Remarks:

Reconsideration of the application is requested. Claims 1-5 and 7-23 are now in the application. Claims 1-2, 4-5, and 14 have been amended. Claim 6 has been canceled.

In items 6-8 of the above-identified Office action, the Examiner has rejected claims 4-5 as being indefinite under 35 U.S.C. § 112.

More specifically, the Examiner has stated that, in claim 4, the term "a few" was indefinite. Claim 4 has been amended and the rejected term removed. The range has been defined to be from 3 Hz to 27 MHz. Support for the change can be found on page 7, line 19, through page 8, line 2, of the specification.

In claim 5, the Examiner rejected the phrase "the switching frequency" for lacking antecedent basis. Claim 5 has been amended to change "the switching frequency" to --a switching frequency--.

Accordingly, the specification and the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the

claim for any reason related to the statutory requirements for a patent.

In item 10 of the Office action, the Examiner rejected claims 1-12, 14-16, and 18-22 as being obvious over Harvey (GB 1 447 754 A) in view of Matthews (GB 2 323 855 A) and Welch (U.S. 4,209,552) under 35 U.S.C. § 103(a).

In light of the reasons given by the Examiner (namely, that Harvey teaches that the switching frequency can be shorter than one or two times per minute), claim 1 has been amended to include the features of claim 6 and claim 6 has been cancelled. The new feature is that the switching frequency is substantially equal to 27 MHz.

As stated in the last paragraph on page 7 of the specification, the high-frequency switching (i.e. ~27 MHz) has a crucial, unexpected advantage: the cleaning action becomes independent of the geometry of the article. *See especially*, specification page 7, lines 23-25, and page 23, lines 20-24. If desired, Applicant could provide a Declaration under Rule 1.132 that explains the advantages of the greater frequency over the prior art.

These unexpected advantages can be produced even at switching frequencies of 2 Hz (*see* claim 4) and 50 kHz (*see* claim 5).

Accordingly, none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Therefore, claim 1 is patentable over the art. Moreover, because claims 3, 7-13, and 16-23 ultimately depend on claim 1, they are believed to be patentable as well.

Amended claim 2 should be allowable because Harvey only describes a fixed preset frequency. In contrast, claim 2 has been amended to delete "a fixed preset frequency". An adjustable frequency and a regulated frequency, as claimed, are therefore not taught or suggested by Harvey or the other prior art.

Amended claim 14 is not obvious in light of Harvey et al. in view of Matthews and Welch because the cited prior art does not teach initially heating without sputtering. Claim 14 has been amended to include this feature. Support for the change can be found in the specification at page 25, lines 5-10, in light of page 3, lines 5-9.

In contrast to claim 14, Harvey teaches a continuously repeated cleaning cycle of heating and sputtering; *see* page 2, lines 98-105.

Claim 14 of the instant application provides that the article is heated without sputtering. Then, this can be followed by

cleaning by sputtering. *See* page 25, final paragraph. While in practice, some heating during sputtering cannot be avoided, however, according to the invention, there is no switching. Harvey teaches to switch the apparatus in order to the cycle of cleaning by heating then sputtering. Again, the main difference remains that the article is heated without sputtering; *see again* page 25, last paragraph.

Because this feature is neither taught nor suggested by the Harvey or the remaining prior art, claim 14 is not obvious. In addition, claim 15, which depends on claim 14, is also not obvious.

In view of the foregoing, reconsideration and allowance of claims 1-5 and 7-23 are solicited. In the event the Examiner should still find any of the claims to be unpatentable, please telephone counsel so that patentable language can be substituted.

Payment for one additional independent claim costing $84 is enclosed.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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Version with Markings to Show Changes Made:

In the Claims:

Cancel claim 6.

Claim 1 (twice amended). A method of cleaning a surface of an article having a metallic base body, the method which comprises:

generating a plasma with electrically positively charged ions, accelerating the ions towards the article, and bringing ions into contact with the base body for cleaning the base body;

directing an electron beam onto the base body; and

controlling an outgoing flow of electrons coming into contact with the base body by connecting the base body to a reference potential via a switch at a given switching frequency of substantially 27 MHz.

Claim 2 (amended). [The] A method [according to claim 1] of cleaning a surface of an article having a metallic base body, the method which comprises:

generating a plasma with electrically positively charged ions, accelerating the ions towards the article, and bringing ions into contact with the base body for cleaning the base body;

directing an electron beam onto the base body;

controlling an outgoing flow of electrons coming into contact with the base body by connecting the base body to a reference potential via a switch at a given frequency; and

selecting the given frequency from the group consisting of [a fixed preset frequency,] an adjustable frequency[,] and a regulated frequency.

Claim 4 (twice amended). A method of cleaning a surface of an article having a metallic base body, the method which comprises:

generating a plasma with electrically positively charged ions, accelerating the ions towards the article, and bringing ions into contact with the base body for cleaning the base body;

directing an electron beam onto the base body;

controlling an outgoing flow of electrons coming into contact with the base body by connecting the base body to a reference potential via a switch at a given switching frequency by adjusting the switching frequency in a range from [a few] 3 Hz to [a few] 27 MHz.

Claim 5 (twice amended). A method of cleaning a surface of an article having a metallic base body, the method which comprises:

generating a plasma with electrically positively charged ions, accelerating the ions towards the article, and bringing ions into contact with the base body for cleaning the base body;

directing an electron beam onto the base body; and

controlling an outgoing flux of electrons by adjusting [the] a switching frequency to substantially 50 kHz.

Claim 14 (twice amended). A method of cleaning a surface of an article having a metallic base body, the method which comprises:

initially heating the article without a gas for forming a plasma;

adding the gas for forming the plasma;

generating [a] the plasma from the gas with electrically positively charged ions, accelerating the ions towards the article, and bringing ions into contact with the base body for cleaning the base body;

directing an electron beam onto the base body; and

controlling an outgoing flow of electrons coming into contact with the base body by connecting the base body to a reference potential via a switch at a given switching frequency[; and

heating the article prior to cleaning].